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Title

Supporting implementation of evidence based psychotherapy through a user centered designed scaffolding technology approach

Priority 1 (Research Category)

Behavioral, psychosocial, and mental illness

Presenters

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Abstract

Background: While Problem Solving Treatment (PST) for depression is an effective psychotherapy, it is not widely used and fidelity drops quickly following training. We sought to identify usability challenges and implementation solutions for clinicians who wished to deliver PST and to pilot such a solution.

Methods: As part of the University of Washington ALACRITY Center (NIMH-P50MH115837), we applied the Discover, Design, Build, and Test human-centered design framework. Discover, Design, and Build stages included clinician observations and interviews (9 undergoing PST training-as-usual and 10 experienced PST clinicians), identification of themes and support needs for PST. Rapid prototyping cycles with these clinicians and their patients led to a web-based application which served to support and "scaffold" PST tasks as well as provide decision support for both providers and patients (PST Aid App). Randomization to training in PST as usual or PST-Aid of a new set of providers (clinical social workers who were part of the University of Washington Behavioral Health Integration Program and new to PST) was carried out to pilot a Type III hybrid effectiveness/implementation trial of this tool. Fidelity to PST and clinically significant improvement in depression (PHQ-9 scores) were the outcomes of interest.

Results: 11 clinical social workers were randomized to study conditions (4 PST as usual, 7 PST Aid). No difference was found seen in baseline characteristics of clinicians ($p>0.05$). Patient age was significantly less in the PST Aid condition than in usual PST ($p=0.03$) but not for any other demographic characteristic ($p>0.05$). Baseline depression symptoms scores were not different between study conditions ($p=0.43$). More clinicians adopted PST in the PST-Aid group than those without the tool (72% vs. 50%; $p<0.05$). No difference between groups using fisher's exact test ($p = .07$) for participants responding to treatment. However, 67% of participants in the treatment arm (PST Aid) responded to treatment, while 0% of participants receiving standard care responded to treatment.

Discussion: We found that a user centered design approach to technology based "scaffolding" can support the adoption, reach, and sustained fidelity of an evidence based clinical intervention. Involving clinicians and patients in the design process may enhance the use and adoption of support tools. This pilot lays the groundwork for a large hybrid effectiveness/implementation trial.

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